

Chemotherapy versus targeted therapy - Which one should be the best choice for Non-small cell lung cancer patients

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The role of targeted therapy especially small molecules tyrosine kinase inhibitor (TKI) is well established within the past 10 years. Initially these agents were tested in unselected population for second and third line treatment. These agents (gefitinib and erlotinib) have already been approved for use in second and third line treatment of NSCLC.

In the early trials of these agents the benefit were seen mainly in patients with adenocarcinoma, non-smokers, Asian Ethnicity. Female seems to be better than male.

Some study had retrospective review and had suggested that several biomarkers in the EGFR pathway i.e. EGFR mutation, EGFR Amplification (FISH) and EGFR expression by immunohistochemistry (IHC) are important markers. However because the data derived from retrospective review and some patient who had no EGFR expression had responded plus the difficulty of obtained tumor tissue for tested; thus the conclusion on the use of these test as a guide to treatment was not firm.

Several pilot trials using gefitinib as first line based on clinical parameter were reported from Japan and Korea. Recently the result of Iressa Pan Asia Study (IPASS) was completed and set the background for more understanding and lead to the selection of patients who will achieved higher benefit as compare to doublet chemotherapy based on Molecular marker (EGFR Mutation). Thus proper selection of first line treatment in Non-Small Cell Lung Cancer is possible.